A Need to Redefine Chronic Pain?

bout 15 years ago the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) were published.¹ This has been a major achievement in the field of TMD for 2 reasons: (1) Inclusion criteria were defined for specific TMD diagnoses. (2) The TMD community was made aware that pain does not have only a somatic (sensory-discriminative) dimension but also affective (emotional), motivational, and cognitive dimensions that are important as well. Since then the RDC have been used almost routinely in research to define the somatic characteristics of the study population. My experience as an associate editor has been that reviewers tend to reject TMD-related manuscripts not using these criteria. Surprisingly, studies addressing treatment modalities in samples diagnosed according to the RDC did not report substantially different outcomes from those of previous studies in which the samples were less homogeneous as far as the somatic diagnosis is concerned. The conclusions are basically still the same: first, 75% to 85% of patients with pain lasting for more than 3 to 6 months, ie, with chronic pain, are cured or improve significantly irrespective of the treatment modality used; second, an active treatment is a "little bit" better than no treatment; and third, the pain decreases in patients with an internal derangement or osteoarthritis in spite of the fact that the intra-articular anatomic conditions remain unchanged.

These results may simply reflect 2 facts: first, that for the vast majority of TMD patients, the prognosis is favorable, as has been shown repeatedly by epidemiologic studies,²⁻⁴ so that the therapy at best accelerates the spontaneous remission; and second, that the positive outcome is due at least partially to a placebo effect resulting from the patient's expectations in the psychosocial context of the study. In addition, the results support the clinical experience that TMD patients can easily be treated by means of a variety of simple, noninvasive therapies, provided they do not suffer from chronic pain. Interestingly, the prevalence of TMD patients highly disabled by the pain is approximately 15% to 20%,^{5,6} a figure that corresponds to the percentage of unsuccessfully treated patients. From these facts, a question arises: Does the fact that the disorder lasted for more than 3 to 6 months prove that patients suffered from a chronic condition?

Chronic pain is usually defined as a pain without apparent biologic value that has persisted beyond the normal tissue healing time (usually about 3 to 6 months). The first part of the definition reflects the fact that chronic pain does not have a warning function, as is the case for acute pain, while the second part simply addresses the issue of time. However, the definition does not express the fact that chronic pain is characterized by severe emotional, affective, and cognitive distress as well as disability. While the essential role of affective discomfort in the pain experience is widely recognized, there has been a longstanding tendency among scientists to study the neuroplastic changes that may explain the transition from acute to chronic pain. This, in addition to the fact that for most of us it is easier to determine the nature of the TMD disorder than it is to assess cognitive, affective, and emotional reactions, has had the consequence of subordinating the importance that the psychological distress has on pain perpetuation.

Characterization of chronic pain only on a time scale is insufficient and may lead to considering chronic pain to be simply a persisting acute pain, thus limiting access to clinically important pain control strategies, ie, psychological pain therapy. Only an inclusive perspective of chronic pain, with emphasis on the emotional and cognitive features, provides options for comprehensive pain management. From a clinical-therapeutic point of view, the definition of chronic pain should therefore imply the presence of affective and cognitive distress. Consequentially, chronic pain should be defined as pain without apparent biological value accompanied by significant affective and cognitive distress. In such a context, a pain lasting for more than 3 to 6 months without psychological distress is not a chronic pain. For differentiation it could be called persistent pain, though both adjectives, chronic and persistent mean the same, ie, long-lasting.

The definition of chronic pain solely using the criterion of duration may, in addition, lead the clinician to believe that psychologic assessment and/or psychologic pain therapy are needed only if the pain lasts for more than 3 to 6 months. The consequence is that too often the psychosocial evaluation of a TMD pain patient occurs too late, when the patient already has a long history of pain and unsuccessful therapies and has developed maladaptive pain coping strategies. On

the contrary, in patients at risk of developing chronic pain, the cognitive, affective, and motivational pain dimension should be addressed early. Indeed, the process of chronicity can start almost immediately after injury.⁶ In addition, there is evidence that intervening early in the course of musculoskeletal pain is more likely to be effective than intervening late. In patients with recent-onset rheumatoid arthritis, an early cognitive-behavioral intervention produced improvements in psychologic as well as physical outcome above and beyond what can be achieved by medical care alone (details in Keefe et al⁸). Furthermore, the risk that a pain will become chronic depends to a great extent upon the presence of emotional distress, dysfunctional coping profile, and high disability in addition to the initial pain intensity.9-12

In conclusion, the definition of chronic pain should be reconsidered in order to include the patient's distress. In this context, the RDC also need to be reevaluated with the view of adding new questionnaires to provide more homogeneous patient groups, which is a prerequisite in order to better address the question of treatment efficacy. Lastly, the clinician must understand the need to evaluate early the affective, motivational, and cognitive pain dimensions in order to screen for patients at risk and therefore to prevent acute pain from becoming chronic.

Sandro Palla Associate Editor

References

- Dworkin SF, LeResche L (eds). Research Diagnostic Criteria for Temporomandibular Disorders: Review, criteria, examinations and specifications, critique. J Craniomandib Disord 1992;6:301-355.
- Carlsson GE, Magnusson T, Egermark I. Prediction of demand for treatment of temporomandibular disorders based on a 20-year follow-up study. J Oral Rehabil 2004;31:511-517.
- Egermark I, Magnusson T, Carlsson GE. A 20-year follow-up of signs and symptoms of temporomandibular disorders and malocclusions in subjects with and without orthodontic treatment in childhood. Angle Orthod 2003;73:109–115.
- 4. Egermark I, Carlsson GE, Magnusson T. A 20-year longitudinal study of subjective symptoms of temporomandibular disorders from childhood to adulthood. Acta Odontol Scand 2001;59:40–48.
- 5. Von Korff M, Ormel J, Keefe FJ, Dworkin SF. Grading the severity of chronic pain. Pain 1992;50:133–149.
- 6. Paak S. Schmerzbezogene psychosoziale Aspekte bei Patienten der Myoarthropathie-Sprechstunde. Dtsch Zahnärztl Z 2000;56:317-321.
- McGrath PA, Dade LA. Strategies to decrease pain and minimize disability. In: Price DD, Bushnell MC (eds). Psychological Methods of Pain Control: Basic Science and Clinical Perspectives. Seattle: IASP Press, 2004:73–96.
- Keefe FJ, Rumble ME, Scipio CD, Giordano LA, Perri LM. Psychological aspects of persistent pain: Current state of the science. J Pain 2004;5:195–211.
- Dworkin RH. Which individuals with acute pain are more likely to develop a chronic pain syndrome. Pain Forum 1997;6:127–136.
- Epker J, Gatchel RJ, Ellis E3. A model for predicting chronic TMD: Practical application in clinical settings. J Am Dent Assoc 1999;130:1470–1475.
- 11. Epker J, Gatchel RJ. Coping profile differences in the biopsychosocial functioning of patients with temporomandibular disorder. Psychosom Med 2000;62:69–75.
- 12. Gatchel RJ, Stowell AW, Buschang P. The relationships among depression, pain, and masticatory functioning in temporomandibular disorder patients. J Orofac Pain 2006;20:288–296.